Amendments to the Claims:

Please amend claim 64. This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1-31 (canceled)

32 (previously presented): A mass spectrometry probe comprising:

(a) a sample presenting surface, wherein the sample presenting surface is a surface of the probe;

(b) energy absorbing molecules immobilized by chemical bonding to the sample presenting surface; and

(c) an affinity reagent immobilized by chemical bonding to the sample presenting surface, wherein the energy absorbing molecules are different from the affinity reagent.

33 (previously presented): The probe of claim 32, wherein the sample presenting surface does not have additional matrix molecules.

34 (previously presented): The probe of claim 32, wherein the probe comprises metal.

35 (previously presented): The probe of claim 32, wherein the energy absorbing molecules are covalently bound to the sample presenting surface.

36 (previously presented): The probe of claim 32, wherein the energy absorbing molecules and affinity reagent are arranged on the sample presenting surface in a predetermined array.

37 (previously presented): The probe of claim 32, wherein the energy absorbing molecules are selected from the group consisting of dimethoxy hydroxycinnamic acid, cinnamamide, cinnamyl bromide, dihydroxybenzoic acid, and cyanohydroxycinnamic acid.

38. (previously presented): The probe of claim 32, wherein the affinity reagent is covalently bound to the sample presenting surface.

39. (previously presented): The probe of claim 32, wherein the affinity reagent is selected from the group consisting of a metal ion, a protein, a peptide, a nucleic acid and a dye.

40. (previously presented): The probe of claim 39, wherein the affinity reagent comprises a metal ion.

41. (previously presented): The probe of claim 40, wherein the metal ion is selected from copper or iron.

42. (previously presented): The probe of claim 39, wherein the affinity reagent comprises a protein or peptide.

43 (previously presented): The probe of claim 42, wherein the protein or peptide is an immunoglobulin.

44 (previously presented): The probe of claim 39, wherein the affinity reagent comprises a nucleic acid.

45 (previously presented): The probe of claim 44, wherein the nucleic acid is DNA.

46 (previously presented): The probe of claim 32, wherein the analyte comprises a protein.

47 (previously presented): The probe of claim 32, wherein the analyte comprises a nucleic acid.

48 (previously presented): The probe of claim 32, wherein the analyte is bound to the affinity reagent.

49 (previously presented): A method for detecting an analyte comprising:

(a) capturing an analyte on a sample presenting surface of a mass spectrometry probe, wherein the sample presenting surface is a surface of the probe, wherein the probe comprises (i) energy absorbing molecules immobilized by chemical bonding to the sample presenting surface, (ii) an affinity reagent immobilized by chemical bonding to the sample presenting surface, wherein the energy absorbing molecules are different from the affinity reagent, wherein the analyte is not dispersed in a matrix crystalline structure, but is presented within, on or above the energy absorbing molecules; and

(b) detecting the captured analyte by laser desorption/ionization mass spectrometry.

50 (previously presented): The method of claim 49, wherein additional matrix molecules are not added.

51 (previously presented): The method of claim 49, wherein the energy absorbing molecules are covalently bound to the sample presenting surface.

52 (previously presented): The method of claim 49, wherein the energy absorbing molecules and affinity reagent are arranged on the sample presenting surface in a predetermined array.

53 (previously presented): The method claim 49, wherein the energy absorbing molecules are selected from the group consisting of dimethoxy hydroxycinnamic acid, cinnamamide, cinnamyl bromide, dihydroxybenzoic acid, and cyanohydroxycinnamic acid.

54. (previously presented): The method of claim 49, wherein the affinity reagent is covalently bound to the sample presenting surface.

55. (previously presented): The method of claim 49, wherein the affinity reagent is selected from the group consisting of a metal ion, a protein, a peptide, a nucleic acid and a dye.

56. (previously presented): The method of claim 55, wherein the affinity reagent comprises a metal ion selected from copper or iron.

57. (previously presented): The method of claim 55, wherein the affinity reagent comprises an immunoglobulin.

58 (previously presented): The method of claim 55, wherein the affinity reagent comprises DNA.

59 (previously presented): The method of claim 49, wherein the sample is selected from the group consisting of blood, tears, urine, saliva, gastrointestinal fluids, spinal fluid, amniotic fluid, bone marrow, bacteria, viruses, cells in culture, biopsy tissue, plant tissue or fluids and insect tissue or fluids.

60 (previously presented): The method of claim 49, wherein the analyte comprises a protein.

61 (previously presented): The method of claim 49, wherein the analyte comprises a nucleic acid.

62 (previously presented): The method of claim 61, wherein the nucleic acid is DNA.

63 (previously presented): A mass spectrometry apparatus comprising:

(a) a probe comprising:

i. a sample presenting surface;

ii. energy absorbing molecules immobilized by chemical bonding to the sample presenting surface;

iii. an affinity reagent capable of binding an analyte immobilized by chemical bonding to the sample presenting surface; and

iv. an analyte that is not dispersed in a matrix crystalline structure, but is presented within, on or above the energy absorbing molecules, wherein the energy absorbing molecules are different from the affinity reagent;

(b) an energy source that directs laser energy to the sample presenting surface for desorbing and ionizing the analyte;

(c) a detector that detects the desorbed, ionized analyte

(d) a spectrometer tube into which ionized analyte is accelerated;

(e) means for applying an accelerating electrical potential to the desorbed, ionized analyte; wherein the mass spectrometer is a time-of-flight mass spectrometer; and

(f) vacuum means for applying a vacuum to the interior of the tube.

64 (currently amended): The ~~probe~~ apparatus of claim 63, wherein the sample presenting surface does not have additional matrix molecules.

65 (previously presented): The apparatus of claim 63, wherein the detector comprises an electron multiplier.

66 (previously presented): The apparatus of claim 63, wherein the energy source is energy from a nitrogen laser or an Nd-YAG laser.

67 (previously presented): The apparatus of claim 63, wherein the energy absorbing molecules are noncovalently bound to the sample presenting surface.

68 (previously presented): The apparatus of claim 63, wherein the energy absorbing molecules are covalently bound to the sample presenting surface.

69 (previously presented): The apparatus of claim 63, wherein the energy absorbing molecules are selected from the group consisting of dimethoxy hydroxycinnamic acid, cinnamamide, cinnamyl bromide, dihydroxybenzoic acid, and cyanohydroxycinnamic acid.

70. (previously presented): The apparatus of claim 63, wherein the affinity reagent is noncovalently bound to the sample presenting surface.

71. (previously presented): The apparatus of claim 63, wherein the affinity reagent is covalently bound to the sample presenting surface.

72. (previously presented): The apparatus of claim 63, wherein the affinity reagent is selected from the group consisting of a metal ion, a protein, a peptide, a nucleic acid and a dye.

73. (previously presented): The apparatus of claim 72, wherein the affinity reagent comprises a metal ion.

74. (previously presented): The apparatus of claim 73, wherein the metal ion is selected from copper or iron.

75. (previously presented): The apparatus of claim 72, wherein the affinity reagent comprises a protein or peptide.

76 (previously presented): The apparatus of claim 75, wherein the protein or peptide is an immunoglobulin.

77 (previously presented): The apparatus of claim 72, wherein the affinity reagent comprises a nucleic acid.

78 (previously presented): The apparatus of claim 77, wherein the nucleic acid is DNA.

79 (previously presented): The apparatus of claim 63, wherein the analyte comprises a protein.

80 (previously presented): The apparatus of claim 63, wherein the analyte comprises a nucleic acid.

81 (previously presented): The apparatus of claim 80, wherein the nucleic acid is DNA.